

# Master and Broadcast Monitors 2009

## TRIMASTER Series

PSE Content Creation Product Marketing

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## TRIMASTER series

- Sony is expanding its TRIMASTER range with two new models
- BVM-L230
  - 23" Full HD Master Monitor
- BVM-L170 **New**
  - 17" Full HD Master Monitor
- PVM-L2300 **New**
  - 23" Full HD Broadcast Monitor



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# Broadcast & Professional Monitors Product Positioning

Reference  
Monitor

BVM-L230

PVM-L2300

LMD-2450W

Preview  
Monitor

Master LCD Monitor

BVM-L

TRIMASTER

PVM-L

Control  
Monitor

LMD-xx50W

LMD High Grade LCD Monitors

9 17 20 24 42

iChromaTRU

YOU  Sony

TRIMASTER

TRIMASTER

- ◆ Accurate Colour Reproduction
- ◆ Precision Imaging
- ◆ Quality Picture Consistency

ChromaTRU

ChromaTRU

- ◆ Precise Colour Reproduction
- ◆ Gamma Accuracy

# Key Technologies

## Technologies



1. Precise colour reproduction and gamma accuracy with ChromaTRU technology- Similar to CRT
2. Precise signal accuracy and smooth colour gradation with 10-bit signal processing
3. High quality motion adaptive I/P conversion for improved picture performance

### Model name

- LMD-4250W
- LMD-2450W
- LMD-2050W
- LMD-1750W

### Target applications

- BC (Studio/OBVAN/Master Control Room)
- Production Company (Editing)
- Location/Hire Companies
- Videographers/Prosumers
- Institutional/Corporate/Education

## TRIMASTER

1. Accurate Colour Reproduction
  - Colour Management System
  - Wide Colour Gamut
  - Digital Uniformity
2. Precision Imaging
  - High Resolution & High Colour
  - High Motion Picture Processing
  - Accurate Pixel Mapping
3. Quality Picture Consistency
  - Accurate Signal Processing
  - Precise Calibration System
  - Colour Feedback System

### Model name

- BVM-L230
- BVM-L170
- PVM-L2300

### Target applications

- BC (Studio/OBVAN/Master Control Room)
- Production Company (Editing)
- High-end Post Production & Cinema applications

# Defining a Master Monitor



# New Trademark “TRIMASTER”

TRIMASTER is the Mastering Technology, which ensure three key element for professional Monitors, as accurate colour reproduction, Precision Imaging and Quality Picture Consistency.

## Accurate Color Reproduction

- Non-linear Cubic Conversion
- High-purity LED
- Digital Uniformity



## Precision Imaging

- Full HD & 10 bit Panel
- 120Hz drive & Black Frame Insertion
- New IP conversion Interface Display Mode

TRIMASTER  
BVM-L230

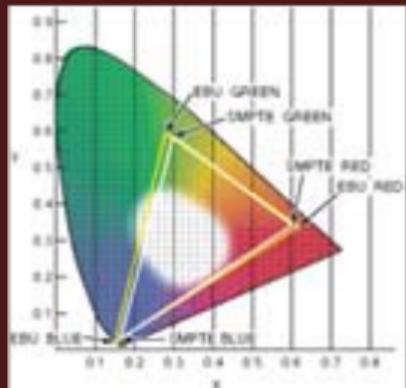
## Quality Picture Consistency

- Professional Display Engine with 12 bit accuracy
- Precise Calibration System
- Color Feedback System

# BVM-L Master Monitor



## Accurate Colour Reproduction



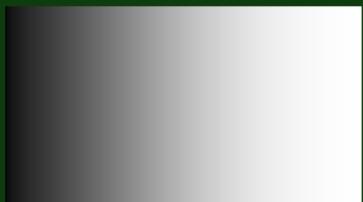
Emulates BC standards, ITU-R BT.709, EBU, SMPTE-C and even D-Cinema

- High purity LED backlight (Precision Backlight System)
- Color management system (nonlinear cubic conversion)

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## BVM-L Master Monitor

## Precision Imaging



- Offers “pixel-to-pixel” and high contrast precision digital HD images
  - Full HD (1,920 x 1,080) HD resolution
  - RGB 10 bit panel driver



- Superb Motion picture response
  - High Frame Rate (120fps)
  - Black Frame Insertion

- Interlace mode

120fps

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# BVM-L Master Monitor



## Quality Picture Consistency

### Ensures Quality Picture Consistency

- A signal-process featuring 12-bit output accuracy
- Precise panel calibration
- Colour feedback system



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In order to ensure **"Accurate colour"** , **"Precision Imaging"** and **"Quality Picture Consistency"** to the master monitor grade, Sony developed new key devices exclusive for TRIMASTER Series.

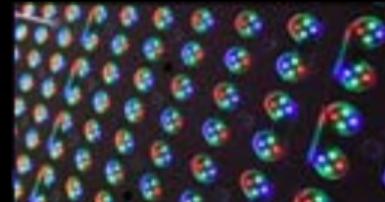
## 1. Customized LCD Panel

- Full HD Resolution
- RGB 10 bit driver
- High Frame Rate (96/100/120Hz)



## 2. Precision Backlight System (for BVM)

- Colour Temp can be adjusted by backlight
- Wide colour Space by High-purity LED
- Uniformity Control and Stabilization



## 3. New Display Engine

- 12 bit accuracy
- New I/P Algorithm with less process delay
- New colour Management System



# BVM-L230 Master Monitor

- First Reference 23-inch Full HD Master monitor on the market
- Superior SD and HD picture performance with low video delay
- Ultimate accuracy in colour and picture uniformity
- Extended colour gamut for Cinema applications
- S-Log gamma for CineAlta camera
- Enhanced production features
  - Picture & Picture various display mode
  - HD frame capture on memory stick
  - Pixel zoom
  - Gamut error
- No picture distortion and less adjustments required.
- Target applications
  - High-end post production
  - Colour grading
  - Program/Preview
  - Engineering
  - Reference image control



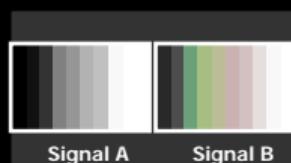
Over 600 units sold world wide!

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# New Functions

## Picture & Picture Display mode

Ability to display various modes picture side by side



Side by Side



Wipe



Butterfly



Blending

## Pixel Zoom

Mode available in native scan mode



## HD Frame capture

Full HD capture on memory stick!

Magnified up to 800% without scaling

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# BVM-L170 Product Outline **New**

## Product Concept

17" W LCD Master Monitor

Successor of the well known BVM-A20/A14 series

Rack mountable

Outdoor operation

## Product Outline

17" Full HD (1920x1080) 10 bit LCD panel

TRIMASTER monitor with LED Precision backlight control  
and Sony Professional Display Engine

19" rack mountable (6U Height), DC operation available

Other features are consistent to BVM-L230

Introduction: Available now!



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# PVM-L2300 Product Outline **New**

- Product Outline
  - TRIMASTER technology concept is inherited
    - ~ Professional Display Engine with 12 bit output accuracy
    - ~ Accurate colour reproduction by wide CCFL backlight
    - ~ Low latency High Quality I/P conversion
  - Relaxed specification aimed for Broadcast applications
    - ~ 23" 1920 x 1200 10bit LCD Panel
  - Many functions compatible with BVM-L series
- Introduction: Available now!



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# PVM-L2300 features difference v.s. BVM-L230

- Wider tolerances than BVM-L Master monitor
- Less accuracy in picture uniformity
- Optimised for Broadcast colour gamut
- Less picture consistency and stability
- No Cinema features
  - (D-Cine, S-Log gamma, Film aspect, Film cadence)
- Limited Picture & Picture Display mode
  - Side by side mode only (no Wipe, Butterfly, Blending)
- No Gamut error detection
- No LUT's



## TRIMASTER Series - Customer benefits

- **Ultimate LCD picture performance**
  - Full HD resolution, precision backlight, 10bits LCD drivers, Sony display engine
- **Accurate colour performance**
  - CMS, precise calibration system, colour feedback system, 12 bits output signal processing
- **Enhanced user operation with wide choice of Colour Gamut**
  - EBU, SMPTE, ITU-709, D-Cine
- **Enhanced SD picture quality and low latency video delay**
  - Display engine power
- **Maintenance efficiency**
  - No influence of terrestrial magnetic field
  - No picture distortion (geometry, focus, convergence and linearity)
- **Enhanced Multi-format capability**
  - 1080/50p , D-Cinema and PC format
- **New added features**
  - Picture & picture displays, Pixel zoom, HD Frame capture, etc.



**More information is available on:  
[www.Sonybiz.net/Monitors](http://www.Sonybiz.net/Monitors)**

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